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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/575,522	05/23/2000	John M. Savage JR.	12,103	4329

7590 06/02/2003
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EXAMINER

LEE, JOHN D

ART UNIT PAPER NUMBER

2874

DATE MAILED: 06/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/575,522

Applicant(s)

SAVAGE, JOHN M.

Examiner

John D. Lee

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 May 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

The drawings are objected to because many of the handwritten numerals and hand-drawn lines are non-uniform, faint, and indistinct. A proposed drawing correction or corrected drawings are required in reply to this Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-8, 25, 29, and 34 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In the last line of claim 4, there is no antecedent support for the term "the light pipe", thus rendering claim 4 (along with claims 5-8 which are dependent thereon) indefinite. The correct term would be "the fiber optics cable". In line 2 of claim 25, there is no antecedent support for the term "said unit end wall", thus rendering the claim indefinite. It is therefore believed that claim 25 should depend from claim 13 rather than from claim 12. In lines 2-3 of claim 29, there is no antecedent support for the term "said fingers", thus rendering the claim indefinite. It is therefore believed that claim 29 should depend from claim 28 rather than from claim 27. In line 3 of claim 34, there is no antecedent support for the term "said spring fingers" because of the word "spring". The claim is thus indefinite.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2874

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 5, and 38 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by U.S. Patent 5,732,176 to Savage, Jr. (submitted by applicant). Savage discloses a device for transmitting light comprising the combination of (a) a fiber optic cable having light entrance and light exit ends; (b) a body for positioning the entrance end of the cable to receive light, the body carrying a receiver which receives the entrance end of the cable; and (c) an anchor carried by the body for attachment to a mounting board. See Figure 2, for example. The Savage device also includes a focusing and transmitting lens on each end of the fiber optic cable, and the cable's core is aligned with a substantially flat light transmitting surface of the lens.

Claims 6-8, 12-15, 19, 24-27, 29, 30, 35-37, and 39 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,732,176 to Savage, Jr. (submitted by applicant). In Savage, the lens and receiver are separate, distinct elements, but unitary lens/receiver arrangements are well known in the art and would have been obvious for use in the reference. The plastic exterior jacket of the cable is retained to the structure which includes the receiver, although the jacket is not retained to a bore defined by the receiver. The resultant retainment being essentially the same, it would have been obvious to have the Savage receiver define a bore (even one having ribs therein) in which the exterior jacket of the cable is retained. Note that an

LED light source is used in the reference. Savage does not include a lens unit at the light exit end of the cable (only at the light entrance end), but the inclusion of same would have been obvious in order to more accurately focus the output light energy. Particular structure of such a lens unit (e.g. particularly defined walls) would also have been obvious.


Claims 2, 3, 9, and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,732,176 to Savage, Jr. (submitted by applicant) in view of U.S. Patent 6,302,595 to Vilgiate et al. The Savage reference does not disclose a portion of the structure being sidewardly offset relative to the receiver in order for a pushing tool to exert pressure on the offset portion and anchor the structure to a board, there also being a shoulder on the structure to receive the force of the pushing tool. Vilgiate et al, however, clearly shows just such anchoring structure for a light transmitting device of the same general type as that of Savage. Since the ability to easily push the anchors into openings of a board greatly facilitates assembly of the device, and since both references are from the same field of endeavor, a person of ordinary skill in the art would have found it obvious to use the sidewardly offset anchoring structure of Vilgiate et al in the device of Savage. A recess for accurately receiving the tool which pushes the anchors into the board openings would also have been obvious. Choosing a particular number of anchors on the structure (e.g. three) would similarly have been obvious for a person of ordinary skill.

Claims 11, 16-18, 20-23, 28, and 31-34 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,732,176 to Savage, Jr. (submitted by applicant) in view of U.S. Patent 5,818,995 to Savage, Jr. (submitted by applicant). It is clear that both these references disclose very similar devices for transmitting and/or receiving light to/from a light pipe. The Savage '176 device does not include the particular features set forth in these claims of the instant

application, but Savage '995 does show such features. Since both references are from the same field of endeavor and are so similar one to the other, a person of ordinary skill in the art would have found it obvious to incorporate features from one into the other. The provision of the "tongue-and-groove interlock" and "spring fingers" features of Savage '995 into the device of Savage '176 would thus have been obvious to a person of ordinary skill in the art.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 4,718,744 to Manning shows a termination including a lens unit for a light pipe transmitting/receiving device. Other related light pipe termination units which are anchorable to circuit boards can be seen in the U.S. Patents to Jennings et al (6,256,445) and Savage, Jr. (6,264,376). Still other devices for transmitting and/or receiving light to/from a light pipe which are closely related to the device claimed in this application are described in the four (4) additionally cited U.S. Patents to Savage, Jr. ('503, '658, '174, and '676).

Any inquiry concerning the merits of this communication should be directed to Examiner John D. Lee at telephone number (703) 308-4886. The Examiner's normal work schedule is Tuesday through Friday, 6:30 AM to 5:00 PM. Any inquiry of a general or clerical nature (i.e. a request for a missing form or paper, etc.) should be directed to the Technology Center 2800 receptionist at telephone number (703) 308-0956, to the technical support staff supervisor (Team 2) at telephone number (703) 308-3072, or to the Technology Center 2800 Customer Service Office at telephone number (703) 306-3329.


John D. Lee
Primary Patent Examiner
Group Art Unit 2874